

Work Order ID 52050

September 15, 2009 11:18:22 AM



Page 1

Item ID: D206-667-101

Accept



Setup Start



Revision ID: C

Item Name: Crosstube Fwd

Stop



Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals:

Process Plan:

RD MK

Date: *09-15*

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



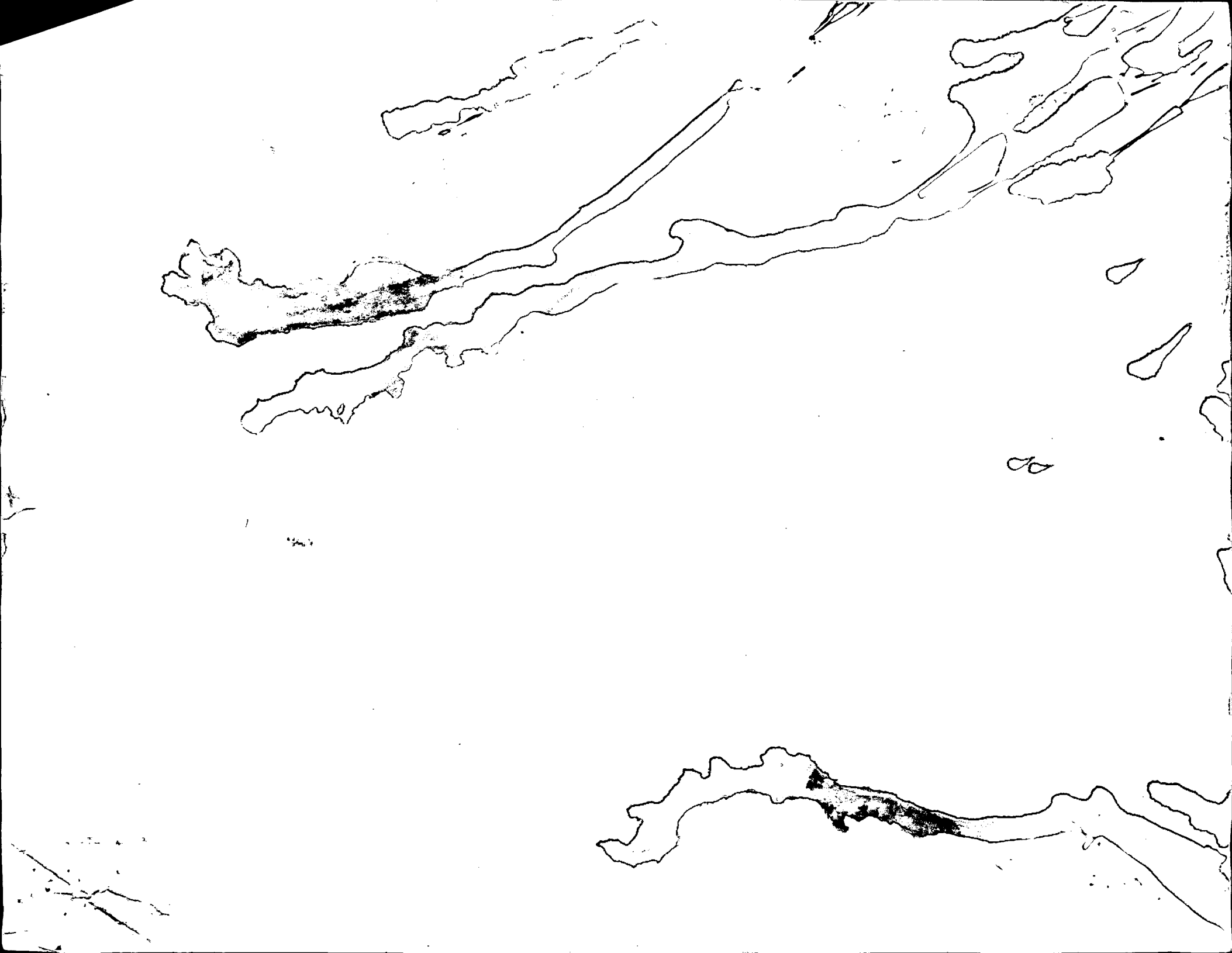
Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D206-667-141	Rev C								
100		0.00							
	DOCUMENT CONTROL								
DC	Memo	0.00							
Document Control	Photocopy bluefile and create labels as per PPP D206-667-101		CHG003						
110		0.00							
	Packaging								
Packaging	Memo	0.00							
Packaging									
120		0.00							
	BENDING MACHINE - CROSSTUBES								
CNC Bend 1	Memo	0.00							
CNC Delta 100 Bender	Bend tube as per Dwg D206-667-141 using CNC bender program 206B-fw and Folio FT								

Sorla 9

for BG 09/11/18

9-11-9

9-11-9



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Setup Start

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Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC15- Crosstube Dimensional Check

0.00

QC

Memo

0.00

Quality Control

1

CPA 11/10
205-11-10



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Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

140



Crosstubes

Crosstubes

0.00

0.00

Memo

1-Drill holes & ream using drill Jig DT8541 & DT8542 as per Dwg D206-667-141. Drill all (3) top holes.

3-Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins.

4-Drill pilot holes using drill Jig DT8541 & DT8542 as per Dwg D206-667-141. Drill only the top (2) holes.

5-Drill pilot holes as per Dwg D206-667-141. Drill only the top (2) holes.

6-Drill Fwd rivet holes using drill Jig DT8787FWD as per Dwg D206-667-141. Note: Fwd side has 3x top holes.

7-Drill Aft rivet holes using drill Jig DT8787AFT as per Dwg D206-667-141.

8-C'sink holes as per Dwg D206-667-141. Allow rivet to sit below surface to compensate for paint.

9-Scribe part # and batch # using vibrating stylus as per Dwg D206-667-141 Inside of Cuff (Do not engrave on outside of tube)

10-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-141

MB
09-11-10

MB
09-11-10

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Item ID: D206-667-101

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Item Name: Crosstube Fwd

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Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 HandFXtube Hand Finishing Crosstubes	Crosstubes Chemical Conversion Memo	0.00 0.00				(14)	Ø	MB 09-11-10	
160 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				1			PS-11-12
170 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				1			PS-11-12

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Item ID: D206-667-101

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Setup Start



Revision ID: C

Item Name: Crosstube Fwd

Stop



Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210		0.00							
	SprayPaint								
SprayPaint		0.00							
Spray Painting	Memo 1-Prime inside and outside crosstube as per QSI 005 4.2.1 *****Let tube sit up right for 30mins before hanging***** P4500-P-23 Base Batch: <u>111134</u> P4500-C-23 Catalist Batch: <u>111134</u> Start time: <u>9:30</u> Finish: <u>10:30</u>								
220		0.00							
	QC14- Inspect Spray Paint								
QC		0.00							
Quality Control	Memo Wrap in plastic bag to protect from scratches								

MA 09 11 16 (1)

FT 09-11-17 (1)

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Item ID: D206-667-101

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Fwd

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230		0.00							
	SprayPaint					<u>ml</u>	<u>09</u>	<u>11</u>	<u>16</u> ①
	Memo	0.00							
	Spray Painting								
	1-Paint outside crosstube with White Imron as per QSI 005								
	4.2								
	Imron 55U white paint								
	Imron 125S activator								
	Batch: <u>112073</u>								
	Batch: <u>112673</u>								
	Start: <u>3:00</u>								
240		0.00							
	QC14- Inspect Spray Paint								
	Memo	0.00							
	QC								
	Quality Control								
						<u>PT</u>	<u>09-11-17</u>		

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Item ID: D206-667-101

Accept



Setup Start



Revision ID: C

Item Name: Crosstube Fwd

Stop



Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250		0.00							
	Crosstubes					<u>ml</u>	<u>09</u>	<u>11</u>	<u>17</u> (1)
Crosstubes	Memo	0.00							
Crosstubes	1-Install support using 0.03" to 0.06" thick layer of magnobond 6398 per QSI 015. Let cure for 12h after installation and prior to packaging. Note: (3) top holes should be facing up. A/R Magnobond 6398: <u>112417 exp. 01/2011</u>								
	2-Torque clamps to 80-100 in lb <u>ml 09 11 18</u>								
	3-Install nut plates as per Dwg D206-667-141. Touch-up rivet heads with Imron paint. <u>ml 09 11 18</u>								
260	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									

278 09/11/18



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Item ID: D206-667-101

Revision ID: C

Item Name: Crosstube Fwd

Start Date: 09/16/2009 Start Qty: 1.00

Required Date: 10/06/2009 Req'd Qty: 1.00

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start
Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

270



Packaging

Packaging

Pick Kit

Memo

0.00

0.00

9/16/18 DSB

280



QC

Quality Control

QC4- 100% Inspect kits for completeness

Memo

0.00

0.00

8/29/19

Ⓚ /

290



Packaging

Packaging

Packaging

Memo

0.00

0.00

9/16/19 DSB

Identify and pack for shipping as per PPP D206-667-101

Location: DBB

PPP Rev: _____

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Item ID: D206-667-101

Accept



Setup Start



Revision ID: C

Item Name: Crosstube Fwd

Stop



Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

300

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/11/19

09-11-19

Picklist Print

September 15, 2009 11:18:21 AM

Page 1

Work Order ID: 52050

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd

Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D2873-043RevA Manufactured No

250

Each

53.0000

2.0000



Nut Plate Assembly

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

53

45370

18

45422

15

50002

20

not 09/11/09

D2873-045RevA Manufactured No

250

Each

71.0000

2.0000



Nut Plate Assembly

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

71

45210

11

46772

20

50001

40

not 09/11/09

Picklist Print

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Page 2

Work Order ID: 52050

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd

Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2891-1RevA1		Manufactured	No			250	Each	81.0000	2.0000			

2.25 Support

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	81	
40336	1	
41198	16	
43880	20	
45935	4	
46159	20	
50952	20	

ml 09 11 17

D3595-063-395

Manufactured No

250

Each

44.0000

4.0000



RUBBER CUSHION

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	44	
44667	44	

ml 09 11 17

Picklist Print

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Page 3

Work Order ID: 52050

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd

Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

MS20601-AD4W8

Purchased

No

250

Each

328.0000

14.0000



RIVET

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

328

108521

100

110399

28

112203

200

ml 09 11 18

ANS-30A

Purchased

No

270

Each

85.0000

4.0000



BOLT

9/16/09 8/

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

85

110467

85

4x90

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Shop Packet Print

Page 3

Picklist Print

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Page 4

Work Order ID: 52050

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd

Start Date: 09/16/2009


Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

AN5-32A  Bolt		Purchased	No			270	Each	79.0000	4.0000			
---	--	-----------	----	--	--	-----	------	---------	--------	--	--	--



M112805 9/16/09 sep

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

79

106242

3

106519

4

110363


17

111916

5

112082

50

AN5-7A  Bolt		Purchased	No			270	Each	81.0000	10.0000			
--	--	-----------	----	--	--	-----	------	---------	---------	--	--	--



9/16/09 sep

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

81

110625

7

111668

24

112612

50

10250

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Shop Packet Print

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Picklist Print

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Page 5

Work Order ID: 52050

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd

Comments:

Start Date: 09/16/2009

Required Date: 10/06/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD516 Washer		Purchased	No			270	Each	1,153.000	18.0000		9/16/18	SL

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST	1153	
100564	2	
106167	6	
107534	34	
107959	43	
108246	46	
108672	2	
109059	49	
109752	22	
110363	46	
110523	57	
111279	43	
112082	303	
112314	500	

MS21042L5

Nut

Purchased

No

270

Each

1,307.000

4.0000

Warehouse

Location

Loc Qty

Loc Code

Main Warehouse

ST	1307	
110382	10	
111636	297	
112314	1000	

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Picklist Print

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Work Order ID: 52050

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd


Start Date: 09/16/2009

Required Date: 10/06/2009

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21920-20 		Purchased	No			270	Each	156.3000	4.0000			
Clamp (per MIL-DTL-8783C)												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	156.3	
103478	2	
106484	12	
109269	9.3	
110536	10	
<u>111281</u>	34	
112307	50	
112624	39	

ml 091117

D206-667-
101TRNRevC

Manufactured No

110 Each 4.0000 1.0000



Crosstube Turning Detail

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
LG	4	
50518	1	
50519	1	
<u>50619</u>	1	
50620	1	

1 DP 9-11-9

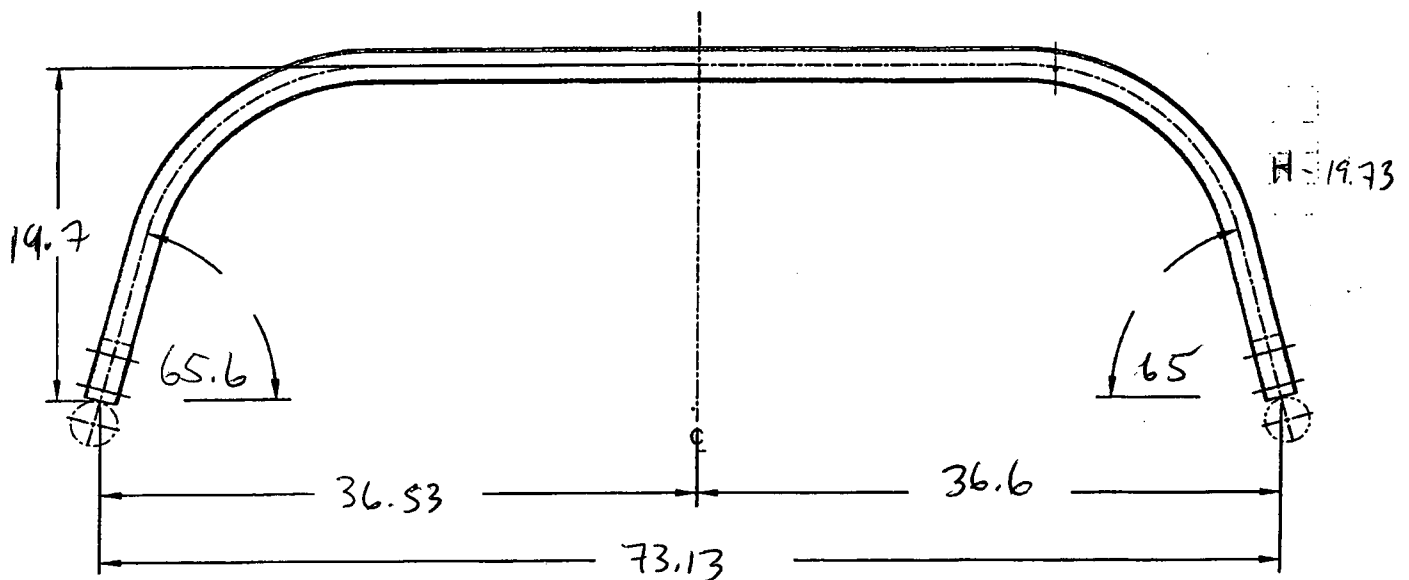
September 15, 2009 11:18:21 AM

Shop Packet Print

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DART AEROSPACE LTD		Work Order:	52050
Description: Crosstube High Fwd (206B)		Part Number:	D206-667-101
Inspection Dwg: D206-667-141 Rev: C		Page 1 of 1	

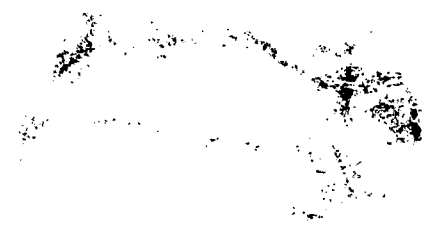
Required Dimension	Min	Max
Height	19.41	19.67
1/2 Span	36.47	36.73
Angle	65	67
Total Span	72.94	73.46



Comments
OK 09.11.10

QC15 Inspection	05/11/10
Date	05-11-10

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	09.07.30	Dimensions revised per Dwg Rev C	KJ	



Item	Qty -141	Part Number	Description
1	X	D206-667-141	CROSSTUBE ASSEMBLY (206B HIGH FWD)
2	1	D6001-105	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2891-1	SUPPORT
6	4	D3595-063-395	RUBBER CUSHION
7	4	MS21920-20	CLAMP (OR MS21920-21)
8	14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

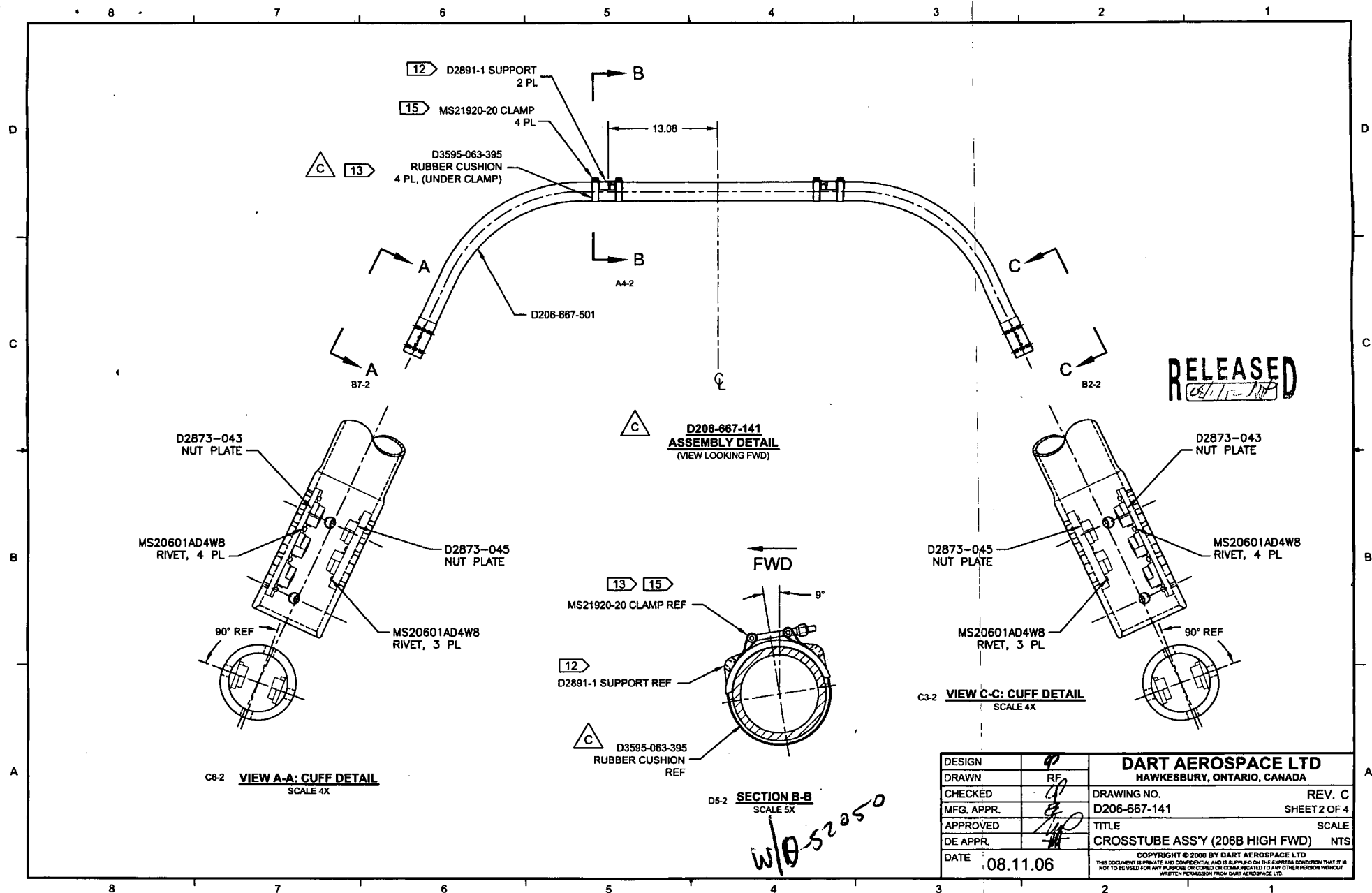
GENERAL NOTES:

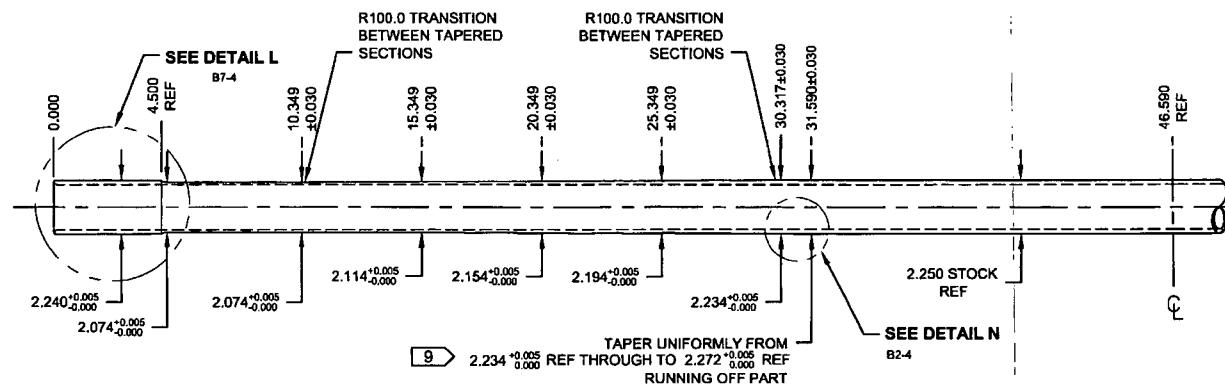
- 1) MATERIAL: MANUFACTURED FROM D6001-105
FINISHED LENGTH = 93.18±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-141" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 11.3 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 12 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 52050

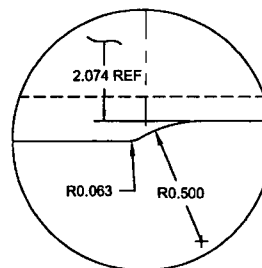
RELEASED
08/11/12

C	REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-395 WAS D2856-400-694 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCES (ZN C4-3, C5-3 & D3-3); RELOCATED FLAG #8 (ZN A8-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4.	RF	08.11.06
B	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKUDTUBES	PH	05.07.26
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. REV. C D206-667-141 SHEET 1 OF 4 TITLE SCALE CROSSTUBE ASS'Y (206B HIGH FWD) NTS <small>COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	
DRAWN	RF		
CHECKED	RF		
MFG. APPR.	RF		
APPROVED	RF		
DE APPR.	RF		
DATE	08.11.06		

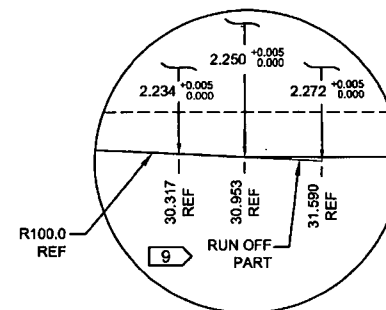




TURNING DETAIL

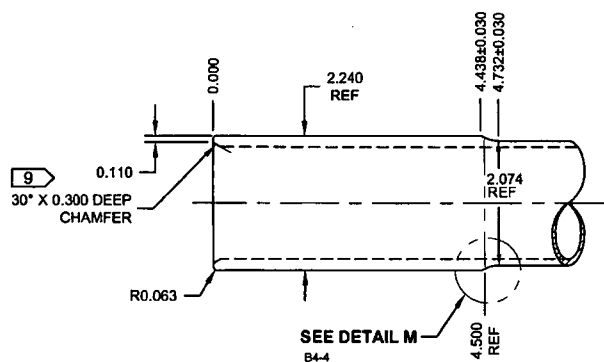


DETAIL M:
CUFF TRANSITION
NOT TO SCALE



DETAIL N:
TAPER RUN-OFF
NOT TO SCALE

RELEASED
08/11/06



DETAIL L:
CROSSTUBE CUFF
NOT TO SCALE

DESIGN	97	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	97	DRAWING NO.	REV. C
MFG. APPR.	97	D206-667-141	SHEET 4 OF 4
APPROVED	97	TITLE	SCALE
DE APPR.	97	CROSSTUBE ASS'Y (206B HIGH FWD)	NTS
DATE	08.11.06	<small> COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. </small>	

W/D-52050

5.0 PARTS LIST

Item	Qty -011	Qty -013	Qty -015	Qty -101	Qty -201	Qty -103	Qty -203	Qty -105	Qty -205	Part Number	Description
	X									D206-667-011	SPACER BLOCK KIT
		X								D206-667-013	NUT PLATE KIT (-101/-103/-105/-203/-205)
			X							D206-667-015	NUT PLATE KIT (-201)
				X						D206-667-101	CROSSTUBE INSTALLATION, 206A/B HIGH FWD
					X					D206-667-201	CROSSTUBE INSTALLATION, 206A/B HIGH AFT
						X				D206-667-103	CROSSTUBE INSTALLATION, 206L/L-1/L-3/L-4 HIGH FWD
							X			D206-667-203	CROSSTUBE INSTALLATION, 206L/L-1/L-3/L-4 HIGH AFT
								X		D407-667-105	CROSSTUBE INSTALLATION, 407 HIGH FWD
									X	D407-667-205	CROSSTUBE INSTALLATION, 407 HIGH AFT
1				1						D206-667-141	CROSSTUBE ASSEMBLY, 206A/B HIGH FWD
2					1					D206-667-241	CROSSTUBE ASSEMBLY, 206A/B HIGH AFT
3						1				D206-667-143	CROSSTUBE ASSEMBLY, 206L/L-1/L-3/L-4 HIGH FWD
4							1			D206-667-243	CROSSTUBE ASSEMBLY, 206L/L-1/L-3/L-4 HIGH AFT
5								1		D407-667-145	CROSSTUBE ASSEMBLY, 407 HIGH FWD
6									1	D407-667-245	CROSSTUBE ASSEMBLY, 407 HIGH AFT
10				*2	*2	*2		*2		D2891-1	SUPPORT
11							*2			D2892-1	SUPPORT
12									*1	D2894-1	SUPPORT
13				*2	*2	*2		*2		D2856-400-694	ABRASION STRIP
14							*2		*2	D2856-400-773	ABRASION STRIP
15									*1	D2856-600-851	ABRASION STRIP
16				*4	*4	*4		*4		MS21920-20	CLAMP
17							*4		*4	MS21920-22	CLAMP
18									*2	MS21920-24	CLAMP
19				4	4	4		4		AN5-32A	BOLT
20							4		4	AN5-34A	BOLT
21				4	4	4	4	4	4	MS21042L5	NUT (OR MS21042-5)
22				8	8	8	8	8	8	AN960JD516	WASHER
23									*2	D3190-1	CHAFING SHIELD
30	8									AN4-6A	BOLT
31	8									AN4-7A	BOLT
32	16									AN960JD416	WASHER
33	2									D3193-041	SPACER BLOCK ASSEMBLY
40	2			*2		*2	*2	*2	*2	D2873-043	NUT PLATE
41	2			*2		*2	*2	*2	*2	D2873-045	NUT PLATE
42		2			2					D2872-043	NUT PLATE
43		2			2					D2872-045	NUT PLATE
44	10			10		10				AN5-7A	BOLT
45	10	10			10		10	10	10	AN5-10A	BOLT
46	4	4		4	10	4		4		AN5-30A	BOLT
47	4						4		4	AN5-32A	BOLT
48	18	18		10	12	10	10	10	10	AN960JD516	WASHER
49	4	4			6					MS21042L5	NUT (OR MS21042-5)

*REFERENCE ONLY. PARTS ARE INCLUDED IN D206-667-141/241/143/243, & D407-667-145/245 ASSEMBLIES ABOVE

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Revision: C

Date: 05.07.26
52050



LIQUID PENETRANT TEST REPORT

P- 15308

CLIENT DART AEROSPACE DATE NOVEMBER 12 PAGE 1 OF 1
ATTENTION LINDA/CHANTEL TIME AM ☒ PM ☐
ADDRESS 1270 ABELDEEN ST. ACUREN JOB NO. 188-09-2008001638
HAWKES BURY, ON. POWO NO. 10748
KGH IK7 WORK LOCATION SAME AS NOTED.
PROJECT F.P.I. ON CROSS TUBES. ACCEPTANCE STD. ASTM 1417 REV./DATE 2007
ITEM(S) EXAMINED FIVE ITEMS

JOB DESCRIPTION PROCEDURE NO. LT-0002 REV./DATE TECHNIQUE NO. LT-Test 2 REV./DATE
PART NO. --- MATERIAL ALUMINUM THICKNESS N/A
SCOPE WET FLUORESCENT LIQUID PENETRANT INSPECTION
CARRIED OUT 100% EXTERNAL

TEST DETAILS
METHOD ☒ FLUORESCENT ☐ VISIBLE ☒ WATER WASH ☐ SOLVENT REMOVABLE ☐ POST EMULSIFIED
FAMILY BRAND MAGNAFLUX BLACK LIGHT S/N 16459 ☒ OUTPUT > 1000 μ W/cm² ☐ AMBIENT < 2 fc
PENETRANT 2L 67 MINIMUM DWELL TIME 45 MIN. LIGHTING EQUIP. ☐ FLASHLIGHT ☐ TROUBLELIGHT ☐ OUTPUT > 100 fc @ SURFACE
PENETRANT REMOVER #20 MINIMUM DRY TIME >10 MIN. OTHER LABINO
DEVELOPER SKD 52 MINIMUM DWELL TIME 10 MIN. LIGHT METER S/N CAL DUE DATE DEC. 8, 2007
DEVELOPER TYPE ☒ NON AQUEOUS ☐ AQUEOUS ☐ DRY

TEST SURFACE
SURFACE CONDITION ☐ AS GROUND ☐ AS WELDED ☒ MACHINED ☐ SHOT BLASTED ☐ CLEAN BARE METAL
SURFACE TEMPERATURE ☐ < -4°C/ 20°F ☐ -4°C/ 20°F TO 10°C/50°F ☒ 10°C/50°F TO 52°C/125°F ☐ > 52°C/125°F

RESULTS- ☐ METRIC ☐ IMPERIAL

1 CROSS TUBE - W.O. 53139 ✓
1 CROSS TUBE - W.O. 53140 ✓
1 CROSS TUBE - W.O. 53271 ✓
1 CROSS TUBE - W.O. 53272 ✓
1 CROSS TUBE - W.O. 52050 ✓

09/11/08

Scope of Services

The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care

In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Group Inc.

SIGNATURES

CLIENT REPRESENTATIVE MATT MURDOCH DTR # E-27851
TECHNICIAN (SIGNATURE): [Signature] SIGNATURE
NAME (PRINT): Mike Johnston
CGSB LEVEL I SNT LEVEL II CGSB LEVEL --- SNT LEVEL ---
CGSB REG. No. 6066 CGSB REG. No. ---

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